CONFIDENTIAL

ENCL TO OSA-0678-69

25X1A [redacted] 25X1A

28 February 1969

25X1A

[redacted]

[redacted]

25X1A

Attention: [redacted] Contracting Officer

25X1A

Subject: Contract [redacted] W/O 69-18

Enclosure: (1) Three (3) Copies of Final Report on Weight Reduction Program for Destruct Covers

Dear Sir:

25X1A

Enclosed please find our Final Report for the Weight Reduction Program for Destruct Covers for use with [redacted] Mod "B" Systems. This report is submitted in accordance with requirement of work order 69-18 of Contract [redacted]

25X1A

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793 AND 794. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

Very truly yours,

25X1A

[redacted]

CONTRACT ADMINISTRATOR

Copy to:

[redacted] w/encl.

25X1A

Serial: MV-0-719

EXCLUDED FROM AUTOMATIC REGRADING DOD-DIR 5200.10 DOES NOT APPLY.

CONFIDENTIAL

FINAL REPORT

WEIGHT REDUCTION PROGRAM

OF

DESTRUCT COVERS

25X1A For Use With [redacted] Mod "B" Systems

Prepared Under

25X1A Contract [redacted] W/O 69-18

The first four sets of explosive destruct covers for use with Mod "B" systems were shipped in October 1968. Each set consisted of a right side assembly and a left side assembly. The basic cover was made of 303 stainless steel; with explosives, each cover weighed 11.75 pounds, or a total destruct system weight of 23.5 pounds.

After the shipping requirements of October were met, a weight reduction program was initiated. The first step was to change the material of the basic cover from stainless steel to aluminum. Two right side assemblies were built and tested. This choice was made because the right side cover contains more explosive material than the left side; also, building two right side covers, rather than one of each, provided two covers to test at worst conditions. Fabrication was completed by 16 December 1968. The weight of the new right side assemblies, with explosive, was reduced to 5.6 pounds. Since the left side is of identical construction it was reasonable to conclude that the total system weight will be less than 11.5 pounds. This represents a total weight saving of 12 pounds per system.

Firing tests were conducted with a system chassis on 18 December 1968. The results showed that the explosive materials had caused a greater dishing effect in the aluminum than in the stainless steel, however, the containment was fully as good.

The following minor modifications were made to the design:

(a) The support area around the fasteners which hold the explosive to the covers was strengthened to preclude the possibility of pulling the fasteners through the cover.

(b) The material of the sealing gasket around the periphery of the covers was changed from a silicone rubber to a neoprene. The high temperature characteristics of the silicone are no longer needed. The neoprene will improve the tear and abrasion resistance of the seal.

The design is sound. All of the drawings have been revised to include the changes. Orders for part numbers [redacted] (right side assy.) and [redacted] (left side assy.) will provide the updated parts.

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OSA - 0678-69

FINAL REPORT

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